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CENTRAL FAX CENTER Attorney Docket No. UMC-215
NOV 03 2004 Client Matter No. 81848.0009.002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re U.S. Patent Application of:

Kim C. HARDEE

Patent No. 6,300,810

Patent Appl. No. 09/492,727

Issue Date: October 10, 2001

Title: VOLTAGE DOWN CONVERTER
WITH SWITCHED HYSTERESIS

Examiner: J. ZWEIZIG

Art Unit: 2816

10/621,555

Consent of Assignee

Assistant Commissioner for Patents
Washington, D.C. 20231

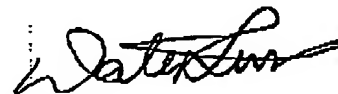
Sir:

United Microelectronics Corporation, assignee of U.S. Patent No. 6,300,810 consents to the filing of the present reissue application for the reissue of U.S. Patent No. 6,300,810.

Dated:

Jan. 30, 2003

Water Lur
Research Director
The Chairman and President Office
United Microelectronics Corporation



BEST AVAILABLE COPY

STATEMENT UNDER 37 CFR 3.73(b)Applicant/Patent Owner: United Microelectronics CorporationApplication No./Patent No.: 6,300,810 B1 Filed/Issue Date: October 9, 2001Entitled: VOLTAGE DOWN CONVERTER WITH SWITCHED HYSTERESISUnited Microelectronics Corporation, a Taiwanese corporation,
(Name of Assignee) (Type of Assignee, e.g., corp., partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title and interest; or
2. ☐ an assignee of an undivided part interest

in the patent application/patent identified above by virtue of either:

- A. ☐ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the Patent and Trademark Office at Reel _____, Frame _____ or for which a copy thereof is attached.

OR

- B. ☒ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

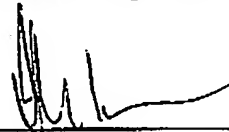
1. From: Kim C. HARDEE to United Memories, Inc. & Nippon Steel Semiconductor Corp. (copy attached)
2. From: United Memories, Inc. to United Microelectronics Corp. (copy attached)
3. From: Nippon Steel Semiconductor Corp. to United Microelectronics Corp (copy attached)

The undersigned (whose title is supplied below) is empowered to sign this statement on behalf of the assignee.

Date

06/27/03

Signature

John Hsuan
Typed or printed nameChief Executive Officer
Title

UMC-215 REI

Attorney Docket No. UMI 215
Client/Matter No. 80450.0019.001

ASSIGNMENT

WHEREAS, I, Kim C. HARDEE, having a residence address of 970 Kit Carson Lane, Colorado Springs, Colorado 80920, have made a certain new and useful invention relating to VOLTAGE DOWN CONVERTED WITH SWITCHED HYSTERESIS, for which I am making or have made application for Letters Patent of the United States, said application being identified by Docket No. UMI 215, Client/Matter No. 80450.0019.001, in the law firm of Hogan & Hartson ~~LLP~~, One Tabor Center, 1200 Seventeenth Street, Suite 1500, Denver, Colorado, 80202, which is being executed concurrently herewith; and

WHEREAS, I now own the entire right, title and interest therein; and

WHEREAS, United Memories, Inc., a Colorado corporation, whose post office address is 4815 List Drive, Suite 109, Colorado Springs, CO 80919, and Nippon Steel Semiconductor Corporation, a Japanese corporation whose post office address is Tateyama Plant, 1580 Yamamoto, Tateyama-shi, Chiba 294, Japan, hereinafter collectively known as ASSIGNEES, are desirous of acquiring the entire interest in and to said invention, said application, and the Letters Patent to be obtained therefor;

NOW THEREFORE, upon consideration of my employment and other good and valuable consideration, the adequacy of which is hereby acknowledged, I do hereby sell and assign unto ASSIGNEES, and said ASSIGNEES' legal representatives, successors, and assigns, the entire right, title, and interest in and to said invention, said application, all applications claiming priority therefrom, and the Letters Patent, both of the United States and of other countries, and inventor's certificates, that may or shall issue thereon; and I do hereby authorize and request the Commissioner of Patents and Trademarks to issue said Letters Patent to ASSIGNEES, consistent with the terms of this Assignment.

UPON SAID CONSIDERATION, I do hereby covenant and agree with ASSIGNEES that I will not execute any writing or do any act whatsoever conflicting with

\\DE - 80450/19 - #78220 v1

this assignment, and that I will, at any time upon request, without further or additional consideration, but at the expense of ASSIGNEES, execute such additional assignments and other writings and do such additional acts as ASSIGNEES may deem necessary or desirable to perfect the ASSIGNEES' enjoyment of this grant, and render all necessary assistance in applying for and obtaining original, continuation, continuation-in-part, divisional, reexamined, renewal, reissued or extended Letters Patent of the United States, or of other countries, or inventor's certificates, on said invention, and in enforcing any rights or causes in action accruing as a result of such applications, certificates, or patents, by giving testimony in any proceedings or transactions involving such applications, certificates, or patents, and by executing preliminary statements and other affidavits, it being understood that the foregoing covenant and agreement shall bind, and inure to the benefit of, the assigns and legal representatives of both parties.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal on the date hereinafter set forth.

Date: Jan. 26, 2000

Kim C. Hardee
Kim C. HARDEE

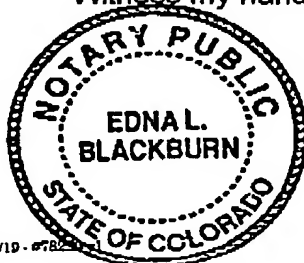
STATE OF COLORADO)
)
COUNTY OF EL PASO) ss.

On this 26th day of January, 2000, before me, a notary public in and for said county, appeared, Kim C. HARDEE who is personally known to me to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he signed, sealed, and delivered the same instrument as a free and voluntary act for the uses and purposes therein set forth.

My commission expires May 17, 2001.

Witness my hand and official seal.

(SEAL)



Edna L. Blackburn
Notary Public

PT 1021751

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:
UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

June 09, 2003

THIS IS TO CERTIFY THAT ANNEXED IS A TRUE COPY FROM THE
ASSIGNMENT RECORDS OF ALL DOCUMENTS FOUND OF RECORD AS
OF THE DATE OF THIS CERTIFICATION FOR:

APPLICATION NUMBER: 09/492,727

FILING DATE: January 27, 2000

PATENT NUMBER: 6,300,810

ISSUE DATE: October 9, 2001



By Authority of the
COMMISSIONER OF PATENTS AND TRADEMARKS

W. Montgomery
W. MONTGOMERY
Certifying Officer

Patent Assignment Abstract of Title**Assignments: 2****Publication #:** 09492727 **Filing Dt:** 01/27/2000**Patent #:** 6300810 **Issue Dt:** 10/09/2001**PCT #:** NONE**Publication #:** NONE**Pub Dt:****Inventor:** Kim C. Hardee**Title:** Voltage down converted with switched hysteresis**Assignment: 1****Reel/Frame:** 010538/0023 **Received:** 02/14/2000 **Recorded:** 01/27/2000 **Mailed:** 04/19/2000 **Pages:** 4**Conveyance:** ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).**Assignor:** HARDEE, KIM C.**Exec Dt:** 01/26/2000**Assignee:** UNITED MEMORIES, INC.4815 LIST DRIVE, SUITE 109
COLORADO SPRINGS, COLORADO 80919**Correspondent:** HOGAN & HARTSON LLP
CAROL W. BURTON, ESQ.
1200 17TH STREET, SUITE 1500
DENVER, CO 80202**Assignment: 2****Reel/Frame:** 011652/0748 **Received:** 04/02/2001 **Recorded:** 04/02/2001 **Mailed:** 06/13/2001 **Pages:** 4**Conveyance:** ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).**Assignor:** HARDEE, KIM C.**Exec Dt:** 01/26/2000 ***Assignee:** NIPPON STEEL SEMICONDUCTOR CORPORATION1580 YAMAMOTO, TATEYAMA-SHI
TATEYAMA PLANT
CHIBA 294, JAPAN**Correspondent:** HOGAN & HARTSON LLP
CAROL W. BURTON, ESQ.
1200 17TH STREET, SUITE 1500
DENVER, CO 80202

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If you have any comments or questions concerning the data displayed, contact OPR / Assignments at 703-308-8723
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Attorney Docket No. UMC-215
Client Matter No. 81848.0009.001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re U.S. Patents of:

United Memories, Inc., et al.

Patent No. 6,300,810, et al.

Issue Date: October 10, 2001

Serial No. 09/492,727

Filing Date: January 27, 2000

Title: VOLTAGE DOWN CONVERTER
WITH SWITCHED HYSTERESIS

CERTIFICATE OF MAILING BY EXPRESS MAIL

Commissioner for Patents
Alexandria, VA 22313-1450

Sir:

The undersigned hereby certifies that the following documents:

1. Recordation Form Cover Sheet Form PTO-1595;
2. Assignment (signed);
3. Check for \$320.00;
4. Return postcard,

and this Certificate of Mailing by Express Mail relating to the above patent, were deposited as "Express Mail", Mailing Label No. EL533427648US with the United States Postal Service, addressed to Mail Stop Assignment Recordation Services, Director of the U.S. Patent & Trademark Offices, P.O. Box 1450, Alexandria, VA 22313-1450, on June 17, 2003.

June 17, 2003

Maier

June 17, 2003

Carol W. Burton, Reg. No. 35,465
HOGAN & HARTSON
One Tabor Center
1200 17th Street, Suite 1500
Denver, Colorado 80202
(303) 454-2454 Tel
(303) 899-7333 Fax

GRM PTO-1595
(rev. 10/02)

RECORDATION FORM COVER SHEET

U.S. Department of Commerce
Patents and Trademark Office

USPS No. 0651-0027 (exp. 6/30/2005)

PATENTS ONLY

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

UNITED MEMORIES INC.

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

Name and address of receiving party(ies)

Name
UNITED MICROELECTRONICS CORPORATION
No. 3 Hsin Road 2
Science Based Industrial Park
Hsin Chu City, TAIWANAdditional name(s) & address(es) attached? ☐ Yes ☒ No

3. Nature of conveyance:

☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ OtherExecution Date: March 3, 1999

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)

B. Patent No.(s)

6,300,810	6,306,744
5,900,021	6,285,242
6,037,827	6,272,029
5,917,230	6,285,216

Additional numbers attached? ☐ Yes ☒ No

5. Name and Address of party to whom correspondence concerning document should be mailed:

Name: Carol W. Burton
Internal Address: Hogan & Hartson LLP
One Tabor Center
1200 17th Street, Suite 1500
Street Address: same as above
City: Denver State: CO Zip: 80202

6. Total number of applications and patents involved: 8

7. Total fee (37 CFR 3.41) \$ 320.00☒ Enclosed
☐ Authorized to be charged to deposit account

8. Deposit account number:

50-1123

(Attach duplicate copy of this page if paying by deposit account)

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9. Statement and signature.

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*Carol W. Burton
Name of Person signing

Signature

June 17, 2003
DateTotal number of pages including cover sheet, attachments and document: 3Mail documents to be recorded with required cover sheet information to:
Commissioner of Patents & Trademarks, Box Assignments
Washington, D.C. 20231


ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, *United Memories Inc.*, having a principal place of business at 4815 List Drive, Suite 109, Colorado Springs, CO 80919 ("Assignor"), hereby assigns, transfers, and conveys to *United Microelectronics Corporation* ("UMC"), having a principal place of business at No. 3 Li Hsin Road 2, Science Based Industrial Park, Hsin Chu City, Taiwan ("Assignee"), its designees, successors, assigns, and legal representatives, the entire right, title, and interest in and to the patents and applications listed in Exhibit A, attached hereto and made a part hereof, and any reexaminations, extensions, reissues, continuations and divisions thereof, and all proceeds from any of the foregoing (including all license royalties and proceeds of infringement suits), and any and all causes of actions (excepting claims against the United States of America) for past, present, and future infringement of any of the foregoing, including the right to collect royalties or damages for any such infringement and the right to sue on any such causes of action, for their own use and benefit and the use and benefit of their successors, assigns, and legal representatives, each and every of the foregoing rights, titles, and interests herein assigned to be held and enjoyed by Assignee, its successors, assigns, and legal representatives, as fully and entirely as the same would have been held and enjoyed by Assignors had this Assignment not been made.

IN TESTIMONY WHEREOF, Assignors have caused this Assignment to be duly executed in their names and behalf by affixing their hands and seals thereto by their designated officer, director, or agent, whose name and title appear below.

Executed at Colorado Springs, Colorado, and effective March 3, 1999.

United Memories, Inc.



Signature

Name: Robert L. Gower

Title: President

Exhibit A
List of Patents and Applications Assigned to UMC

Case	Title	Patent/Serial No.	Country
209	Pad Input Select Circuit	5,900,021	US
209EPO		Patent No: EP869617 Application No: EP97630071.5	Europe
212	Noise Isolation Circuit	6,037,827	US
212EPO		Application No: EP97630089.7	Europe
214	Filter Capacitor	5,917,230	US
214EPO		Application No: EP97630075.6	Europe
214DV		09/344,854	US
215	Voltage Down Converter w/ Switched Hysteresis	Application serial no. 09/492,727 Provisional serial no. 60/118,736	US
215EPO		Patent No: EP1026689 Application No: EP00300886.9	Europe
215JPN		212568/2000	Japan
215KOR		10-2000-40159	Korea
217	Reference Voltage Shifter	Application serial no. 09/492,730 Provisional serial no. 60/118,677	US
217EPO		Patent No: EP1026690 Application No: EP00300887.7	Europe
217JPN		211185/2000	Japan
217KOR		10-2000-40156	Korea
218	Dynamic Regulation Scheme for High Speed Charge Pumps	Application serial no. 09/493,987 Provisional serial no. 60/118,724	US
218EPO		Patent No: EP1026691 Application No: EP00300888.5	Europe
218KOR		10-2000-40165	Korea
218JPN		213058/2000	Japan
222	High Speed Output	Application serial no. 09/213,764	US
222EPO		Patent No.: EP1014378 Application No: EP99310009.8	Europe
222JPN		189877/2000	Japan
222KOR		10-2000-0033152	Korea

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June 17, 2003

Mailer

June 17, 2003

Carol W. Burton, Reg. No. 35,465
HOGAN & HARTSON
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1200 17th Street, Suite 1500
Denver, Colorado 80202
(303) 454-2454 Tel
(303) 899-7333 Fax

PRM PTO-1595
rev. 10/02)RECORDATION FORM COVER SHEET
PATENTS ONLYU.S. Department of Commerce
Patent and Trademark Office

MB No. 0651-0027 (exp. 6/30/2005)

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

NIPPON FOUNDRY, INC.
formerly Nippon Steel Semiconductor Inc.)Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance:

- ☒
- Assignment
- ☐
- Merger
-
- ☐
- Security Agreement
- ☐
- Change of Name
-
- ☐
- Other

Execution Date: March 3, 1999

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No. 3 Hsin Road 2
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Hsin Chu City, TAIWANAdditional name(s) & address(es) attached? ☐ Yes ☒ No

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- Enclosed
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- ☐
- Authorized to be charged to deposit account

8. Deposit account number:

50-1123

(Attach duplicate copy of this page if paying by deposit account)

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Carol W. Burton

Signature

Date
June 17, 2003Total number of pages including cover sheet, attachments and document: 3Mail documents to be recorded with required cover sheet information to:
Commissioner of Patents & Trademarks, Box Assignments
Washington, D.C. 20231

ASSIGNMENT

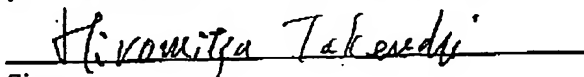
For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, *Nippon Foundry Inc.*, formerly known as *Nippon Steel Semiconductor Inc.*, having a principal place of business at No. 1580, Yamamoto, Tateyama-City, Chiba 294-8502 Japan ("Assignor"), hereby assigns, transfers, and conveys to *United Microelectronics Corporation* ("UMC"), having a principal place of business at No. 3 Li Hsin Road 2, Science Based Industrial Park, Hsin Chu City, Taiwan ("Assignee"), its designees, successors, assigns, and legal representatives, the entire right, title, and interest in and to the patents and applications listed in Exhibit A, attached hereto and made a part hereof, and any reexaminations, extensions, reissues, continuations and divisions thereof, and all proceeds from any of the foregoing (including all license royalties and proceeds of infringement suits), and any and all causes of actions (excepting claims against the United States of America) for past, present, and future infringement of any of the foregoing, including the right to collect royalties or damages for any such infringement and the right to sue on any such causes of action, for their own use and benefit and the use and benefit of their successors, assigns, and legal representatives, each and every of the foregoing rights, titles, and interests herein assigned to be held and enjoyed by Assignee, its successors, assigns, and legal representatives, as fully and entirely as the same would have been held and enjoyed by Assignors had this Assignment not been made.

A copy of the formal documents filed with the government of Japan changing the name of *Nippon Steel Semiconductor Corp.* to *Nippon Foundry Inc.* is attached hereto as Exhibit B.

IN TESTIMONY WHEREOF, Assignors have caused this Assignment to be duly executed in their names and behalf by affixing their hands and seals thereto by their designated officer, director, or agent, whose name and title appear below.

Executed at No. 1580 Yamamoto, Tateyama-City, Chiba 294-8502 Japan, and effective March 3, 1999.

Nippon Foundry Inc.
(formerly Nippon Steel Semiconductor Corp.)


Signature

Name: Hiromitsu Takeuchi
Title: President

Exhibit A
List of Patents and Applications Assigned to UMC

Case	Title	Patent/Serial No.	Country
209	Pad Input Select Circuit	5,900,021	US
209EPO		Patent No: EP869617 Application No: EP97630071.5	Europe
212	Noise Isolation Circuit	6,037,827	US
212EPO		Application No: EP97630089.7	Europe
214	Filter Capacitor	5,917,230	US
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214DV		09/344,854	US
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218	Dynamic Regulation Scheme for High Speed Charge Pumps	Application serial no. 09/493,987 Provisional serial no. 60/118,724	US
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222EPO		Patent No.: EP1014378 Application No: EP99310009.8	Europe
222JPN		189877/2000	Japan
222KOR		10-2000-0033152	Korea

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